

## CLAIMS

WHAT IS CLAIMED IS:

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1. A system for communicating with a communication  
5 channel and a separate host processor, the separate host  
processor being housed within a computer system housing and  
being coupled to a display, the system comprising:  
a peripheral housing separate from the computer  
system housing; and  
10 an audio/visual communication system integral to  
the peripheral housing, the audio/visual communication  
system comprising:  
source receive means for receiving a source  
audio signal and a source video signal;  
15 local transmission means for transmitting  
the source audio signal and the source video signal over  
the communication channel;  
local receive means for receiving a remote  
audio signal and a remote video signal transmitted over the  
20 communication channel; and  
output means, comprising an output  
connector, for communicating the remote video signal  
between the local receive means and the output connector;  
wherein the separate host processor, when coupled  
25 to the output connector, receives the remote video signal  
for displaying a corresponding video image on the display.
2. A system as claimed in Claim 1, wherein the local  
transmission means comprises:  
30 local compression means for converting the source  
audio and video signals to associated local compressed  
audio and video signals of a predetermined compressed  
digital format; and  
means for transmitting the local compressed audio  
35 and video signals over the communication channel.

3. A system as claimed in Claim 1, wherein the local receive means comprises remote decompression means for converting remote compressed audio and video signals of a predetermined compressed format received over the communication channel to associated remote decoded audio and video signals.

4. A system as claimed in Claim 3, wherein the local receive means comprises means for automatically determining the format of the remote compressed audio and video signals.

5. A system as claimed in Claim 1, wherein the output means comprises:  
means for receiving at the output connector a coordination instruction produced by the separate host processor; and  
means for communicating the coordination instruction between the output connector and the local receive means.

6. A system as claimed in Claim 1, wherein the output means comprises one of an SCSI interface and a PCMCIA interface.

7. A system as claimed in Claim 1, wherein the source receive means comprises means for receiving the source video signal in one of a plurality of predetermined video formats.

8. A system as claimed in Claim 1, wherein the source receive means comprises means for receiving the source audio signal from a microphone and the source video signal from at least one of a video camera and a video media player.

5. A system as claimed in Claim 1, wherein the local transmission means comprises channel selection means for selectably transmitting the source audio and video signals over one of an analog communication channel and a digital communication channel.

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10. A system as claimed in Claim 1, wherein the local receive means comprises audio reproducing means for broadcasting audio reproduced from the remote audio signal.

11. A system as claimed in Claim 1, wherein the local transmission means comprises means for transmitting a data file over the communication channel.

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12. A system as claimed in Claim 1, wherein:  
the local transmission means comprises means for converting a standard data file to a compressed data file of a predetermined compressed format; and

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the local receive means comprises means for converting a compressed data file of a predetermined compressed format to a standard data file.

13. A system for communicating with a communication channel and a separate host processor, the separate host processor being housed within a computer system housing and being coupled to a display, the system comprising:

a peripheral housing separate from the computer system housing;

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an audio/visual communication system integral to the peripheral housing, the audio/visual communication system comprising:

source receive means for receiving a source audio signal and a source video signal;

local transmission means for transmitting the source audio signal and the source video signal over the communication channel;

local receive means for receiving a remote audio signal and a remote video signal transmitted over the communication channel; and

output means, comprising an output connector, for communicating the remote video signal between the local receive means and the output connector; and

software means, operable by the separate host processor, for coordinating communication of the remote video signal between the local receive means and the output connector;

whereby the separate host processor, when coupled to the output connector, receives the remote video signal and cooperates with the software means to present on the display a video image associated with the remote video signal.

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14. A system as claimed in Claim 13, wherein:

the software means comprises means for producing a coordination instruction; and

the output means comprises means for receiving the coordination instruction and communicating the coordination instruction between the output connector and the local receive means.

15. A system as claimed in Claim 14, wherein:

the software means comprises means for producing a request coordination instruction; and

the local receive means comprises means for transmitting at least a portion of the remote video signal to the output connector in response to the request coordination instruction.

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16. A system as claimed in Claim 14, wherein the software means comprises means for transmitting a data file over the communication channel.

5 17. A system as claimed in Claim 16, wherein the software means comprises means for adjusting the transmission bandwidth of the communication channel allocated for transmitting the data file, the source audio signal, and the source video signal.

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Sub B4 18. A system as claimed in Claim 14, wherein the local receive means comprises audio reproducing means for broadcasting audio reproduced from the remote audio signal.

15 19. A system for communicating with a communication channel comprising:

a separate host processor being housed within a computer system housing and being coupled to a display;

20 a peripheral housing separate from the computer system housing; and

an audio/visual communication system integral to the peripheral housing, the audio/visual communication system comprising:

25 source receive means for receiving source audio and video signals;

local transmission means for transmitting the source audio signal and the source video signal over the communication channel;

30 local receive means for receiving a remote audio signal and a remote video signal transmitted over the communication channel; and

output means, comprising an output connector, for communicating the remote video signal between the local receive means and the output connector;

wherein the separate host processor, when coupled to the output connector, receives the remote video signal for displaying a corresponding video image on the display.

5       <sup>15</sup>  
      ~~20~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the separate host processor comprises software means, operable by the separate host processor, for coordinating communication of the remote video signal between the local receive means and the output connector.

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21. A system as claimed in Claim 19, wherein the output means comprises:

      means for receiving <sup>(B)</sup> at the output connector a coordination instruction produced by the separate host processor; and

      means for communicating the coordination instruction between the output connector and the local ~~receive means.~~

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20       22. A system as claimed in Claim 19, wherein the output connection means comprises one of an SCSI interface and a PCMCIA interface.

25       <sup>17</sup>  
      ~~23~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the local transmission means comprises channel selection means for selectably transmitting the source audio and video signals over one of an analog communication channel and a digital communication channel.

30       <sup>18</sup>  
      ~~24~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the local receive means comprises audio reproducing means for broadcasting audio reproduced from the remote audio signal.

<sup>19</sup>  
~~25~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the local transmission means comprises means for transmitting a data file over the communication channel.

<sup>20</sup>  
5 ~~26~~. A system as claimed in Claim <sup>19</sup>~~25~~, wherein the host processor comprises means for adjusting the transmission bandwidth of the communication channel allocated for transmitting the data file, the source audio signal, and the source video signal.

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27. A system as claimed in Claim 19, wherein:  
the local transmission means comprises means for transmitting the source video signal to the output connection means; and  
15 the output connection means comprises means for communicating the source video signal between the output connector and the separate host processor.

<sup>22</sup>  
20 ~~28~~. A system as claimed in Claim <sup>21</sup>~~27~~, wherein the separate host processor comprises means for displaying on the display video images associated with at least one of the remote and source video signals.

<sup>23</sup>  
25 ~~29~~. A system as claimed in Claim <sup>21</sup>~~27~~, wherein the separate host processor comprises means for simultaneously displaying on the display video images associated with the remote and source video signals.

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30. A system as claimed in Claim 19, wherein the host processor comprises means for functioning by using one of a plurality of operating systems.

<sup>25</sup>  
31. A system as claimed in Claim <sup>14</sup>~~29~~, wherein the host processor comprises:

detecting means for detecting an incoming  
communication received over the communication channel; and  
software sensing means for producing a detection  
signal in response to the detecting means detecting an  
5 incoming communication.

<sup>26</sup>  
~~32~~. A system as claimed in Claim <sup>25</sup>~~31~~, wherein the host  
processor comprises software alerting means for generating  
an alert message displayed on the display in response to  
10 the detection signal.

<sup>27</sup>  
~~33~~. A system as claimed in Claim <sup>24</sup>~~32~~, wherein the host  
processor comprises:  
interface means for receiving at least one of an  
15 answer coordination instruction and a decline coordination  
instruction from a user of the audio/visual communication  
system in response to the alert message; and  
means, responsive to the answer coordination  
instruction, for coordinating receiving of the incoming  
20 communication.

<sup>28</sup>  
~~34~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the host  
processor comprises:  
means for displaying a video image associated  
25 with the remote decoded video signal within a video window  
displayed on the display; and  
means for modifying the size of the video window  
displayed on the display.

<sup>29</sup>  
30 ~~35~~. A system as claimed in Claim <sup>14</sup>~~19~~, wherein the host  
processor comprises user interface means for interpreting  
graphical indicia presented on the display to a  
corresponding predetermined coordination instruction.



36. A system as claimed in Claim 19, wherein the local transmission means comprises:

local compression means for converting the source audio and video signals to associated local compressed audio and video signals of a predetermined compressed digital format; and

means for transmitting the local compressed audio and video signals over the communication channel.

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37. A system as claimed in Claim 36, wherein the local transmission means comprises means for converting the source video signal in at least one of an NTSC format, a PAL format, and an S-video format to an associated local compressed video signal.

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38. A system as claimed in Claim 19, wherein the local receive means comprises remote decompression means for converting remote compressed audio and video signals of a predetermined compressed format received over the communication channel to associated remote decoded audio and video signals.

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39. A system as claimed in Claim 38, wherein the remote decompression means comprises means for automatically determining the format of the remote compressed video signal.

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40. A system for communicating with a communication channel comprising:

a local host processor being housed within a separate local computer system housing and being coupled to a local display;

a local peripheral housing separate from the local computer system housing and comprising a local

audio/visual communication system, the local audio/visual communication system comprising:

5 source receive means for receiving local audio and video signals acquired from a local conferencing site;

local transmission means for transmitting the local audio and video signals over the communication channel;

10 local receive means for receiving remote audio and video signals transmitted over the communication channel; and

15 local output means, comprising a local output connector, for communicating the remote video signal between the local receive means and the local output connector;

a remote host processor being housed within a separate remote computer system housing and being coupled to a remote display;

20 a remote peripheral housing separate from the remote computer system housing and comprising a remote audio/visual communication system, the remote audio/visual communication system comprising:

25 source receive means for receiving remote audio and video signals acquired from a remote conferencing site;

remote transmission means for transmitting the remote audio and video signals over the communication channel;

30 remote receive means for receiving the local audio and video signals transmitted over the communication channel; and

35 remote output means, comprising a remote output connector, for communicating the local video signal between the remote receive means and the remote output connector;

wherein the local host processor, when coupled to the local output connector, receives the remote video signal for displaying a corresponding remote video image on the local display, and the remote host processor, when  
5 coupled to the remote output connector, receives the local video signal for displaying a corresponding local video image on the remote display.

<sup>12</sup>

<sup>31</sup>

~~41~~. A system as claimed in Claim ~~40~~, wherein:  
10 the separate local host processor comprises software means, operable by the separate local host processor, for coordinating communication of the remote video signal between the local receive means and the local output connector; and  
15 the separate remote host processor comprises software means, operable by the separate remote host processor, for coordinating communication of the local video signal between the remote receive means and the remote output connector.

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<sup>33</sup>

<sup>31</sup>

~~42~~. A system as claimed in Claim ~~40~~, wherein each of the local and remote host processors comprises file transfer means for transmitting and receiving a data file over the communication channel.

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~~43~~. A system as claimed in Claim ~~42~~, wherein each of the local and remote host processors comprises means for adjusting the transmission bandwidth of the communication channel allocated for transmitting the data file and  
30 respectively the local and remote audio and video signals.

<sup>35</sup>

<sup>31</sup>

~~44~~. A system as claimed in Claim ~~40~~, wherein each of the local and remote host processors comprises:  
means for operating at least one of a  
35 plurality of software applications within one of a

plurality of video windows respectively displayable on each of the local and remote displays; and

window sharing means for sharing between the local and remote host processors at least one of the plurality of video windows displayed on at least one of the local and remote displays.

<sup>36</sup>  
~~45~~. A system as claimed in Claim <sup>35</sup>~~44~~, wherein each of the local and remote window sharing means comprises means for simultaneously modifying operation of one of the plurality of software applications displayed in at least one of the plurality of shared video windows.

<sup>37</sup>  
~~46~~. A system as claimed in Claim <sup>35</sup>~~44~~, wherein each of the local and remote window sharing means comprises means for simultaneously modifying a video image displayed in at least one of the plurality of shared video windows.

<sup>38</sup>  
~~47~~. A system as claimed in Claim <sup>31</sup>~~40~~, wherein:  
the local audio/visual communication system comprises audio reproduction means for broadcasting audio associated with the remote audio signal; and  
the remote audio/visual communication system comprises audio reproduction means for broadcasting audio associated with the local audio signal.

<sup>39</sup>  
~~48~~. A system as claimed in Claim <sup>31</sup>~~40~~, wherein:  
the local audio/visual communication system comprises local channel selection means for selectably transmitting the local audio and video signals over at least one of an analog communication channel and a digital communication channel; and  
the remote audio/visual communication system comprises channel selection means for selectably transmitting the remote audio and video signals over at

least one of the analog communication channel and the digital communication channel.

49. A system as claimed in Claim 40, wherein:  
5 local output means comprises means for transmitting the remote video signal and a local coordination instruction produced by the local host processor between the local host processor and the local audio/visual communication system; and  
10 the remote output means comprises means for transmitting the local video signal and a remote coordination instruction produced by the remote host processor between the remote host processor and the remote audio/visual communication system.

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15 50. A system as claimed in Claim 49, wherein:  
the local host processor comprises local user interface means for receiving the local coordination instruction from a local user of the audio/visual  
20 communication system; and  
the remote host processing means comprises remote user interface means for receiving the remote coordination instruction from a remote user of the audio/visual communication system.

25 <sup>41</sup>  
~~51~~. A system as claimed in Claim <sup>40</sup>~~50~~, wherein:  
the local user interface means comprises means for interpreting graphical indicia presented on the local display to a corresponding predetermined local coordination  
30 instruction; and  
the remote user interface means comprises means for interpreting graphical indicia presented on the remote display to a corresponding predetermined remote coordination instruction.

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<sup>42</sup>  
~~52~~. A system as claimed in Claim <sup>31</sup>~~40~~, wherein each of the local and remote host processors comprises means for functioning by using one of a plurality of operating systems.

5                   <sup>43</sup>  
                  ~~53~~. A system as claimed in Claim <sup>42</sup>~~52~~, wherein the local host processor comprises means for functioning by using a first one of the plurality of operating systems, and the remote host processor comprises means for  
10 functioning by using one of the plurality of operating systems other than the first one of the plurality of operating systems.

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